

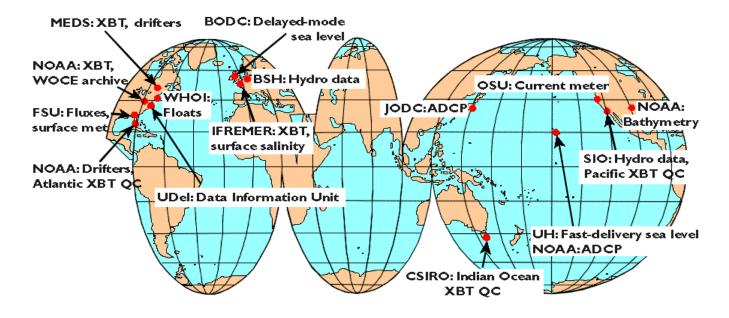
# World Ocean Circulation Experiment (WOCE) Global Data Version 2.0 2000

The oceans are a key element in the world climate system in the way they transport heat and fresh water and exchange these with the atmosphere. The oceans also sequester carbon dioxide released by the burning of fossil fuels. In an attempt to better understand these and other physical processes, twenty-five nations contributed resources to the World Ocean Circulation Experiment to make unprecedented in-situ and satellite observations of the global oceans. These data, collected between 1990 and 1998, will provide much-needed improvements in ocean circulation models used in climate prediction.

Great advances have been made during the WOCE project, in the ability to reproduce the known characteristics of the ocean and its circulation in ocean models. Analysis, interpretation, modeling and synthesis of WOCE data will continue to 2002, but a prerequisite for its success will be the continuing assembly and

quality control of WOCE data. The diverse WOCE data sets will serve as a unique resource for climate researchers and marine scientists for decades to come. This second CD-ROM release contains 15 CD's, and updates the WOCE global ocean data and data information from Version 1. Many of these datasets are now also presented in netCDF format, with links to netCDF software sites included. Other data are in ASCII format. A web browser is required to read these CD's. Netscape and Internet Explorer software for most platforms are included. WOCE data information is disseminated via OCEANIC, an electronic on-line information system. OCEANIC is freely accessible via the World-Wide Web at http://www.cms.udel.edu/woce. Please check this site for the most up-to-date data access and availability information. A list of libraries having copies of these CD-ROM's can be viewed at http://www.soc.soton.ac.uk/GDD/hydro/nph/libraries.html

## **WOCE Data System Components**







#### U.S. DEPARTMENT OF COMMERCE

**National Oceanic and Atmospheric Administration** 

National Environmental Satellite, Data and Information Service National Oceanographic Data Center

March 2001

The WOCE Global Data version 2.0 CD-ROM release consists of 15 CD-ROM's containing a wide variety of data and information as follows:

The Data Information Unit (disc 1): This disc contains an introduction to WOCE, a WOCE bibliography, planning documents, field program information, manuals, WOCE newsletters 1-38, and netCDF resources. A modest amount of bathymetry, Current Meter and Drifting Buoy data is also included.

Hydrographic Programme Data (disc 2): Contains WOCE Hydrographic Program Office One-Time Survey cruises, WHP Repeat Hydrography cruises, the WHP Time Series stations, and WOCE-related CTD/hydrographic cruises. Some WHP data remain "non-public" and are not included on this CD-ROM. See also disc 15 below.

**Upper Ocean Thermal (disc 3):** Holds nearly 800,000 ocean temperature profiles from the upper 1000 meters, collected around the globe during 1990-1999 using XBT, CTD and bottle instruments.

Subsurface Floats (disc4): Includes all WOCE float data, primarily from acoustically tracked floats available to the oceanographic community before May 15,1998. WOCE non-acoustic Autonomous Lagrangian Circulation Explorer (ALACE) float data for the Pacific (through 12/1996), and for the Drake Passage are also included, as well as a subset of the Deep-Basin Experiment in the Western South Atlantic.

Surface Velocity Program (disc 5): This disc contains ocean surface circulation data as measured with satellite-tracked drifting buoys and includes data from WOCE (1990-1998) and pre-WOCE buoys, dating back to 1979.

Current Meter Moorings (disc 6): This CD-ROM contains WOCE current meter records. It is a subset of a larger, on-line collection of current meter records maintained by the Current Meter Data Assembly Center (CMDAC) at Oregon State University.

Acoustic Doppler Current Profilers (disc 7): Includes shipboard ADCP data from WOCE and WOCE-affiliated cruises, as held by the Joint Archive for Shipboard ADCP. Data have been averaged in hourly time spans and 10 m depth intervals.

Sea Level (disc 8): Includes the WOCE "Fast Delivery" and "Delayed Mode" Sea Level data sets, Tidal Constants from the WOCE Sea Level data set, Permanent Service for Mean Sea Level Monthly and Annual Mean Sea Level data set, Global Sea Level

Observing System (GLOSS) Station Handbook information sheets, with a selection of maps and annual mean sea level plots. Deep sea bottom mounted pressure sensor data is also included.

## Surface Meteorology: Pacific & Indian Oceans and Atlantic & Southern Oceans (discs 9):

This collection of data and metadata is the most complete, documented, and up-to-date source of surface meteorology data available for the WOCE project. The underway meteorology data includes values spanning the range from high temporal resolution automated systems to standard bridge observations. Approximately 70 million individual measurements have now been processed.

Surface Fluxes (disc 10): A companion disc to the Surface Meteorology CD-ROM's, this disc contains surface stress and turbulent flux fields created by the WOCE Data Assembly Center/ Special Analysis Center, as well as data from the US Navy's NOGAPS model.

Satellite Data-Sea Surface Height, Sea Surface Temperature (discs 11&12): These CD-ROM's contains SSH from Topex/Poseidon altimetry, for OCT 1992-DEC 1999, and SST from NOAA-n AVHRR, for JAN 1990-NOV 1999. The data are gridded on 0.5 and 1degree grids, both digital data and GIF images are included, as well as software to animate the GIF images, and abundant documentation.

Satellite Data-Wind Data (disc 13): Contains weekly and monthly mean wind fields (wind, wind stress, wind divergence and wind stress curl) calculated from ERS1, ERS2, NSCAT and ADEOS satellites. A map browser, online documentation, temporal and geographical extraction tools, and reading software are included.

eWOCE: Electronic Atlas of WOCE Data (disc 14): Contains UOT data for the Atlantic, Indian and Pacific, plus WOCE Hydrographic Programme hydrographic and tracer data. Ocean Data View software is included, allowing the interactive exploration of these data.

Hydrographic Programme Data: Timeseries (BATS/HOTS) (disc 15): This CD contains final CTD and bottle data for all BATS core and BATS bloom cruises for the period October 1988 (BATSyr01) to September 1998 (BATSyr10), and data from the Physical Oceanography component of the Hawaii Ocean Time-series collected between October 1988 and December 1999.



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